DOCUMENT RESUME

ED 139 421 IR 004 841

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TITLE When OCLC Gets Ill...An Observer's Prognosis.
PUB DATE Apr 77
NOTE 30p.

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS Information Networks; Information Systems; *Interlibrary Loans; *Library Automation; *Library Networks; Library Science; *Systems Development
IDENTIFIERS *Ohio College Library Center

ABSTRACT

Interlibrary loan (ILL) transactions are a major library problem because the increased volume places a burden on systems developed with no general plan. This report lists nine difficulties identified by the 1974 National Commission on Libraries and Information Science. Automated networking is imperative for ILL's future. The Ohio College Library Center (OCLC) is an emerging national, nonprofit network, undergoing continual evolution in its data bases, hardware, membership, and development of new subsystems. Its potential services and data base size make libraries eager to join. OCLC serves as an abbreviated National Union Catalog, and most members use the data base for ILL. An ILL subsystem is being developed to solve problems in communications, recordkeeping, bibliographic control, and cost, with six basic capabilities and three files. In the long range it can bridge the gap between network promotion and library education. The role of OCLC could be as chief overseer in planning as part of a larger network, or OCLC could become the major ILL facility in North America, thereby determining the future of librarianship. (Author/KP)

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# WHEN OCLC GETS ILL ... AN OBSERVER'S PROGNOSIS

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KEY WORDS:
Interlibrary loans
Ohio College Library Center (OCLC)
Librarianship

April, 1977



IR 004 841

In a not too distant future, the entity we know as OCLC will, after a build-up of symptoms, suddenly get ILL. What this means for the future of librarianship is by no means clear; yet, with certain vital signs having become visible, the picture is forming, and the branches in the ILL road have become considerably fewer. The choices are narrowing, and whether the effect on library activity will be positive (as I believe) or negative (as could be) will be evident to us within the decade. Here is a report.

Interlibrary loans (ILL's) are a major library problem. Present interlibrary loan systems arose haphazardly, with no general plan to provide direction or continuity. The situation was acceptable under former conditions of relatively light ILL activity and low cost. The past fifteen years, however, have seen a major increase in interlibrary loans. The financial burden is enormous, and the situation is getting worse.

The 1972 Westat Corporation study of interlibrary loan activity in academic libraries reported that among all institutions studied in the 1969/70 fiscal year, there were an estimated 3,388,000 borrowing and lending requests. Most of this burden fell on a small number of university libraries. Photocopy requests accounted for 43% of all loans, with the attendant expense and manpower requirements. Cost per filled loan request was $4.67 on the average, from a range between $6.81 and $2.04. If the cost per lending transaction were spread over all completed requests, the figure became $5.82. Similarly, if the cost per borrowing transaction were spread over all completed requests, the cost per borrowing transaction reached $7.61. These figures are alarming, and due to certain technical features of the study, they are conservative estimates.

The Westat study projected ILL activity into the 1974/75 fiscal year (for which figures are not yet available).

Westat predicted that the total requests to academic libraries for loans alone would be 3,303,000; for borrowing and lending both, an awesome 5,130,000. Total costs would be $12,517,000 without inflation (a figure which we now know to be rather low). The projection was that overall ILL requests would increase by 50% by 1974/75. There is little doubt that this estimate has been achieved and surpassed. (*See* Association of Research..., pp.3-4, 20, 22, Appendix C; and McAnally, pp.10, 11, 14)

The barriers to a solution of this burgeoning problem are considerable. The 1974 National Commission on Libraries and Information Science detailed the following difficulties:

1) The information community in all sectors is growing more diverse, and its elements have little experience in working jointly--this includes not only libraries, but the academic community as a whole, as well as indexing services, governmental agencies, etc.

2) Information funding is unstable and inefficient. There is no real mechanism for mutual reinforcement, especially among governmental units.

3) Jurisdictional problems hamper cooperation.

4) There are no national guidelines to ensure compatability in statewide and multi-state network development.

5) "The rich resources of the federal libraries and information centers must become an integral part of the nationwide network. This will require that these organizations adopt a more open policy toward serving the general public in addition to their respective departments and a willingness, among themselves, to form a federal library and information service network--one which does not now exist."

6) Professional librarians have attitudinal problems toward the new technology since it requires an entirely new concention of the library and its services.

7) Manpower assessments cannot be accurately made due to the fact that future systems are not yet determined. At present, the product which library schools turn out is not equipped to deal with computer technologies and non-print material.

8) "The current complex pattern of bibliographic services consists of a multiplicity of organizations, in the public and private sectors, providing a variety of products and services. Nation-wide bibliographic control is needed...."

9) "One of the chief obstacles to sharing resources is the lack of public knowledge about the location of available resources", requiring a complex and expensive public relations program. *(see* National Commission..., pp.48-52)

It is certainly true, however, that the concept of networking has injected into the ILL turmoil an element of simplification and hope. It seemed for a time that librarian myopia would lead to the creation of non-automated systems whose structure would seriously interfere with network

development. In some measure, for example, the non-standardized "fee-for service" idea might yet prove to be just such an obstacle. Such phenomena suggest that automated networking is an idea whose time has come none too soon.

As the image of networking took form in the consciences of librarians, the apparent pre-eminence of the Ohio College Library Center (OCLC) was not and could not be foreseen. In a 1973 study which amounts to a scenario of a nationwide interlibrary communications network, Robert M. Hayes virtually ignored OCLC. He approached the problem from the point of view of the National Interlibrary Loan Code, whose basic concept "...is to reduce the burden of the lending library to the least possible since it is being asked to provide a free service to the borrowing library, whose users lie outside the constituency and support of the lending library. The main requirements are that the borrowing library assure that the material is properly identified and

that it is indeed something held by the lending library, before transmitting its request." (Hayes, p.5) The latter is, of course, what OCLC can effortlessly effect thru its on-line union catalog.

Hayes went on to detail what is essentially a 324 page block diagram of a national time-sharing system. He approached the problem in terms of four issues: 1) technical feasibility; 2) operational feasibility; 3) management feasibility; and 4) economic feasibility. "The evaluations are essentially positive with respect to all four issues, and the report recommends proceeding further in development and pilot test of the operation." (p.iv)

With its appended "Draft Procedure Manual", Hayes' study is a well-drawn and insightful schematic. But he could not suspect the direction that OCLC was to take. Only now, in 1977, can a tentative picture be formed. Barbara E. Markuson says it succinctly: "In a sense, OCLC is an unplanned emerging national

network." (Markuson, p.37) It would seem now that in any future national inter-library scheme, OCLC will not only be a member, but the *key* member--and perhaps, the "parent" organization itself.

The Ohio College Library Center went on-line in the fall of 1971, with input from MARC data files and shared cataloging involving some fifty member libraries. On-line search capability via cathode ray terminals (CRT's), with upper and lower case and full diacriticals, was made effective thru an efficient off-line catalog card production operation. Originally organized not by librarians but by their administrators, OCLC is a non-profit Ohio corporation beholden to neither the state of Ohio nor to its colleges and university system. It is a dynamic organization undergoing continual evolution in a number of areas, including the data base itself, new hardware, self-criticism, the addition of new member institutions, and the development

of new systems. OCLC's Philip Schieber describes it this way:

"OCLC has two fundamental objectives: (1) to increase the availability of library resources for users of participating libraries and (2) to slow the rising rate of per-unit costs in libraries. OCLC's long-range goal is the design and operation of an on-line computerized library system that will enable libraries to break from the passive service functions of the past and to participate actively in furnishing information services to users and libraries when and where they need it." (Schieber, p.95)

He notes that the design of the OCLC on-line system provides for six subsystems: 1) on-line union catalog and shared cataloging; 2) serials control; 3) inter-library loan communications; 4) acquisitions; 5) remote catalog access and circulation control; and 6) retrieval by subject.

This array of actual and potential services as possible forces in cost-effectiveness and time-conservation has

staggered the library scene. Nowhere is this more evident than in the fact that as of mid-March, 1976, 1,079 terminals were operating in 670 libraries thruout the United States--this, in less than six years of operation. The eagerness of libraries to join the OCLC family is prompted not only by its potential services, but by the size of its data base. As of spring, 1976, there were over two million records, with OCLC's input of L.C. machine-readable cataloging records comprising perhaps one-third of the total. (*see* Schieber, p.95, and Plotnik, pp.260-2)

The fact is that even without the projected ILL subsystem, OCLC is a potent interlibrary loan tool. Usage of OCLC is by no means a continuous stream of cataloging, as is often conceived. Frederick G. Kilgour, the Center's Director, has suggested that as much as 60% of the messages routed thru OCLC's computers involve library functions other

than cataloging. Interlibrary loan activity is without a doubt the most important of these functions. (*see* Butler, p.208) "Union catalog"--this phrase is a key for the understanding of OCLC's present and future ILL capability.

Using the on-line data base for ILL's is like using an abbreviated NUC. A librarian might punch into the library's OCLC terminal the first three letters of the author's surname and the first three letters of the title of the work for which bibliographic information is desired. If the item is already present in the data base, the CRT screen then reproduces the cataloging record. Within this record are library codes for each library which has cataloged the item thre the OCLC system. The ILL librarian can tell at a glance the closest library which holds the item. ILL processing then takes place off-line, at the requesting library. Normally a request is mailed or teletyped from the requesting library to the lending library; in other

words, OCLC's present ILL utility ends upon the identification of the closest library which owns the needed item. If the borrowing library should decide to purchase the item, perhaps because the terminal indicated that no libraries (or many) owned it, then when that library cataloged the item using the terminal, its own code would be added to the OCLC bibliographic record as a permanent listing.

The effect of OCLC's union catalog function has apparently been most significant in the area of performance, rather than that of cost. (*see* Hewitt, p.275) Even so, the presence of a dual automated system in many libraries, such as an intrastate teletype ILL system as well as OCLC, might well be causing a certain duplication of effort and conceptual confusion. This sort of thing should be cleared up when OCLC's ILL subsystem becomes fully operational.

At present, the majority of the member libraries use the OCLC data base

in some way for ILL activity. Joe A. Hewitt notes in a recent survey that "Some 59% search *all* Roman alphabet requests on the terminal, and 41% use the terminal on a limited basis for ILL verification and location finding." Few libraries keep statistics on the proportion of ILL requests which are found in the data base vs. those which are not. Hewitt gives some figures having little statistical significance, but indicating a high degree of verification (in the 75-85% range). Most librarians surveyed, he notes, are convinced of the usefulness of the data base for ILL searching. (*see* Hewitt, pp.269-71)

OCLC is notable at present for simplifying the ILL process, rather than causing a substantial time savings. There is evidence that time *is* saved in the long run, however, largely because thru the use of OCLC, librarians can send their ILL requests to the closest possible library.

One might expect that all this would greatly increase the volume of interlibrary requests, but apparently this has not been the case. The practice of sending to the closest and *smallest* library has taken some of the load off the large academic institutions, whose inordinate burden was one of the major features of the ILL explosion. (*see* Hewitt, p.270)

But a revolution is coming. It is called the OCLC "Interlibrary Loan Communications Subsystem". Brett Butler calls it "...probably the most significant service for most network member libraries...." (Butler, p.211) It promises a solution to the most critical ILL problems, those of communications, records-keeping, bibliographic control, and cost. The plan received a substantial boost in 1975, in the form of a $108,575 grant from the U.S. Office of Education.

The subsystem's design has recently crystallized around a preliminary "Users

Manual" (September, 1976). The manual lays out a complicated plan of interlibrary communication whose effects, if successful, will be nothing short of extraordinary. In the critical area of cost, the Center's Director of Research and Development, Dr. James E. Rush, has suggested that the ILL subsystem could reduce the overall cost of an interlibrary loan by as much as fifty percent. ("OCLC development...", p.7).

In *Library technology reports*, Barbara E. Markuson has given us a specific picture of the central idea behind the subsystem:

"A task force is working on specifications for an interlibrary loan system in which the OCLC terminal would be used to transmit a message to the OCLC computer system designating both the title sought and the library from which it was sought. The OCLC computer would then activate the 'Message Waiting' light on the OCLC 100 terminal to alert the library that a message was being held for

transmission. The library would then call up its messages when terminal time was available. The implementation date for the Interlibrary loan system has not been announced." (Markuson, p.25)

The Users Manual lays out this design in some detail. Six basic capabilities are presented:

1) A member library can request loans and receive responses to those requests.

2) The library can transmit other unformatted messages.

3) The computer will maintain complete and accurate records of all transactions.

4) The computer will automatically check due dates.

5) The computer will automatically create overdue notifications for the lending and borrowing libraries.

6) The computer will automatically refer a loan request to the libraries specified by the borrowing library. Should a lending library turn down a request, it is then sent automatically to the next library that the borrower listed.

The potential for reduction in paperwork is easily seen. The overall operating design has been carefully geared to cover all conceivable ILL contingencies.

When a library logs onto the system in the morning, the first thing to be seen on the CRT screen will be a "Message Waiting File", summarizing those loan requests, responses, renewals, overdues, special messages, and cancelled loans which have been stored in the computer for the library's action. The operator may then elect to search any one of three available files: the OCLC On-Line Union Catalog, the ILL On-Line Transaction File, or the Message Waiting File. Searching will be done thru search keys on the terminal keyboard.

The On-Line Transaction File will function as the library's own record of all interlibrary transactions which concern it. It is in this file that all pertinent loan information will be stored: author, title, patron, renewal, etc. The user will have access to this information thru a variety of

different avenues which are determined by the loan information itself. The user can search the file using any of the following data elements: interlibrary control number (every transaction has one), call number, borrowing library or lending library symbol, title, name/title (*i.e.*, author/title), and patron name or I.D. number.

There are three possible results of such a search: no ILL record is found, one is found, or several are found. If several are found, the ILL system will respond with a list of truncated entries for the records indicated, thru which more detailed access might be effected (especially thru the use of the disceet ILL control number).

So that a loan record can be quickly scanned by the terminal operator, OCLC has designed two basic ILL "forms" which will appear on the CRT screen as logical groupings of information. The first of these is the Loan Request Form, which contains thirty-five basic data elements covering the heading, bibliographic data, notes, loan

transmittal data, and renewal data. The "notes" category is particularly useful, offering a two-line space for special instructions not covered by the other data elements.

The second basic ILL "form" is the Loan Response Form, which contains twenty-two data elements covering the heading, charges and loan data, notes, shipping information, and renewals.

In both forms, the particular data elements which are provided will be controlled solely by the appropriate party in the transaction. One library cannot illicitly change the other's information. For example, in the Loan Request Form, there is a category for renewal information; two data elements are provided, one controlled by the lending library, and one by the borrowing library. The borrower may request a renewal, and the lender can respond.

Especially useful to the borrowing library is the fact that should the appropriate bibliographic information be

found in OCLC's on-line union catalog, this information can be transferred *en masse* to the appropriate data elements in the Loan Request Form. Another useful tool is the Special Message Feature, which permits libraries to send unformatted requests, instructions, clarifications, etc. to one another outside of the limitations of the forms. At the terminal, a measure of security is provided in that not all employees of a library will have the same access to the records; the subsystem provides for a hierarchy of operators thru employee identification numbers, with separate levels for those who merely retrieve records, those who both retrieve and maintain, and those who retrieve, maintain, alter, dispatch, and cancel. Additionally, the ILL subsystem will automatically examine records for errors, checking for illegal dates, data exceeding maximum length, and illegal transactions, and will automatically notify the offending parties.

So the designers of the OCLC Inter-

library Loan Communications Subsystem have attempted to provide a comprehensive and effective interlibrary service which will fulfill the needs of its diverse member libraries. Whether or not the Center has succeeded is a question that can only be answered when the subsystem goes on-line in the relatively near future.

Staggering as the implications of OCLC's ILL subsystem are, the long-range picture is even more profound. If the tremendous gap between networking promise and librarian education can be bridged, the results may well be a revolution in the underlying conceptions of librarianship. For example, as Kilgour himself has said: "There need be no such thing as a national library of last resort. Every library should be the library of *first* resort." (Plotnik, p.263) The distinction between circulation and interlibrary loan could eventually disappear, as libraries become specialized collections relying on other such collections for the larger part of their information requests.

What role will OCLC play in all this? One is tempted to see it as the chief overseer in a developing (but unplanned) national network of immense proportions, surpassing anything that limited tools such as the National Union Catalog have been able to achieve. But Kilgour has suggested that OCLC might not long survive in its present form, merging into something greater perhaps, or becoming only one of several large data bases in different parts of the country. (*see* Plotnik, p.263)

Somewhat the same idea was expressed by Vernon E. Palmour *et al.*, in a 1974 Westat report titled *Resource and bibliographic support for a nationwide library program*, perhaps the deepest foray into the interlibrary future to date. The Palmour study offered six basic recommendations:

1) The establishment of a National Library Network as an independent agency of the federal government with three interrelated systems (resource, bibliographic,

and communications);

2) The expansion of the MARC data base to provide truly comprehensive bibliographic coverage;

3) The creation of four regional Library Support Centers within the framework of the National Library Network, the four having overall operational responsibility;

4) The creation of delivery zones thru the regional centers for rapid local access;

5) The establishment of state-level coordination thru the state libraries and other appropriate agencies; and

6) The recognition that individual libraries must play a participatory role in the Network.

We still await meaningful federal action.

Like Haves' earlier study, all this sounds attractive on paper. But the realities of the past, namely the unplanned, haphazard development of networking in the United States, suggest another possibility. OCLC, with its ambitions vision and complex capabilities, may find itself developing

into that which it did not originally intend to become: the single, major interlibrary facility in North America. If that is indeed what is happening, then we have, in observing OCLC, a remarkably clear picture of the future of librarianship.

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